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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/289,507	04/09/1999	PAUL DRZAIC	INK-039	8699

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EXAMINER

NGUYEN, JIMMY H

ART UNIT PAPER NUMBER

2673

DATE MAILED: 11/30/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/289,507

Applicant(s)

DRZAIC ET AL.

Examiner

Jimmy H. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 18. 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 2nd, 2001 has been entered. An action on the RCE follows:

Specification

2. The abstract of the disclosure is objected to because line 3 "these" should be changed to -three-. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 51-54 are objected to because of the following informalities: line 1, "1" should be changed to --42-- since claim 1 was cancelled by the amendment filed on 10/02/2001. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 38-41 and 57-59 are rejected under 35 U.S.C. 102(e) as being anticipated by Jacobson et al. (USPN: 5,961,804).

As per claims above, Jacobson et al. discloses a display apparatus comprising a display element which comprises a plurality of same microcapsules (microcapsules or oil drops (150), col. 3, lines 66-67), corresponding to the claimed first and second capsules, each microcapsule (see fig. 2B) comprising a plurality of white microparticles (400) (corresponding to the claimed plurality of white partiles and the claimed third plurality of particles) and a plurality of black microparticles (410) (corresponding to the claimed second plurality of partiles and the claimed fourth plurality of particles); and a plurality of electrodes (electrodes 300, 310) adjacent the display element (fig. 4E), wherein at least one of the plurality of electrodes has a size different from others of the plurality of electrodes (fig. 5B), the element presents a visual display in response to the application of an electrical to the microcapsule (col. 9, lines 3-9), and a white visual display is provided by at least the first plurality of white particles (see fig. 4E). The elements in the claims are read in the reference.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 42-56 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson et al..

In regard to claims 42-44 and 51-53, Jacobson et al. further discloses another one of the plurality of microcapsules (corresponding to the claimed third capsule), which also comprises a plurality of white microparticles (400) (corresponding to the claimed seventh plurality of white particles) and a plurality of black microparticles (410) (corresponding to the claimed eighth plurality of particles) (see fig. 2B). Jacobson et al. further teaches another embodiment in which each of microcapsule (320) includes three different types of plurality of particles (particles 410, 610 and 620) and one type of a plurality of particles includes retroreflective glass spheres (620) for enhancing the brightness of a pixel (see fig. 6A, col. 12, lines 11-17). It would have been obvious to one skilled in the art to provide a plurality of the retroreflective glass spheres (620) in the microcapsules as shown in figure 2B because this would enhance the brightness of a pixel, as taught by Jacobson et al. (col. 12, lines 11-17). Therefore, it would have been obvious to obtain the invention as specified in claims above.

In regard to claims 45-50, these claims are similar to claim 44 except that claim 44 recites one of the optical properties having a black visual appearance while claims 45-50 recites one of the optical properties having a red, green, blue, yellow, cyan or magenta visual appearance. Jacobson et al. further discloses that the particles may be heterogeneous in terms of physical properties and/or colors of the displays (col. 3, lines 14-17). In this particular cases, the selection of the particular colors of the microparticles would have been an obvious matter of design choice, since such a modification would have involved a mere change in color of one type of microparticles, which depends upon on the characteristic of the display, e.g., a black and white display, a red and white display, a green and white display, or etc. Therefore, it would have been obvious to obtain the invention as specified in claims above.

In regard to claims 54-56, Jacobson et al. also teaches the microcapsules further including the suspending fluid being substantially clear (col. 8, lines 35-36) or dyed (col. 12, line 62). Therefore, these claims are rejected for the reason as set forth above.

In regard to claim 60, Jacobson et al. discloses that the front electrode (300) should be transparent and the rear electrode (310) may be selective (col. 8, lines 51-53). In other words, it would have been obvious to one skill in the art to recognize that Jacobson et al. obviously discloses the claimed invention as specified in claim above.

Response to Arguments

5. Applicants' arguments filed 10/02/2001, have been fully considered but they are not persuasive because as follows:

In response to applicants' argument filed "Applicants respectfully submit that Jacobson fails to teach or suggest a multichromatic electrophoretic display element comprising a first capsule including a first plurality of white particles ... wherein a white visual display is provided by at least the first plurality of white particles", page 3, lines 6-9, please see the new rejection above.

Notice to Applicants

6. During the telephone interview on 09/13/2001, Applicants' representative (Michael J. Bastian) pointed out a distinct feature between the cited reference, Jacobson et al., and the invention of the pending application, i.e., the invention of the pending application teaches that in a full **RGB color** display, the display element presents a white visual display by white particles, and while Jacobson et al. discloses that the display element presents a white visual display by a process of individual three red, green and blue microcapsules (see Jacobson et al., column 12,

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lines 5-11). However, none of the pending claims recites a full RGB color display apparatus having a plurality of pixels, wherein each pixel comprises three microcapsules, a first microcapsule including a plurality of white particles and a plurality of red particles, a second microcapsule including a plurality of white particles and a plurality of green particles, and a third microcapsule including a plurality of white particles and a plurality of blue particles, and wherein the white visual pixel is provided by at least by white particles, so as the claimed invention is distinct from Jacobson et al..


Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-9051 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

JHN
November 15, 2001


BIPIN SHALWALA
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